
ABSTRACT

Title : Stability Analysis of Pile Bore Holes on Boredpile Works (Case Study : Toll Road Development Project Jakarta Cikampek II- Elevated), Name : Gatot Samudra, NIM : 41117310047, Supervisor : Resi Aseanto, ST., MT., 2018.

The biggest concern during the boredpile construction process is maintaining the stability of the excavation wall and preventing the collapse or avalanche of material into the excavation hole during the drilling process, cleaning process or casting process. Use of Polymer products as drilling mud, based on the ratio of polymer concentration to water volume. In practice the determination of polymer concentration is still based on experience rather than analysis calculations, so that in some boredpile drilling locations there are still cases of borehole excavation wall collapse. This research is based on literature studies using sample data in the form of N-SPT borelog at three locations. The results of the analysis showed that to maintain the stability of the borehole, a 6m starter casing and polymer slurry with a density of 10.1 kN / m³ were used and keeping the slurry at the surface level. To get polymer slurry with a density of 10.1 kN/m³, a polymer with a concentration of 1.12 kg/m³ is needed, where in mixing 24m³ of water it takes 27 kg of polymer powder for mixing into polymer slurry..

Keywords : Boredpile, Stability of Pile bore, Slurry Polymer

